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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/495,157	01/31/2000	Thomas D. Ashoff	NA11P075/99.039.01	4471

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EXAMINER

MASHAAL, ALI M

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/495,157

Applicant(s)

ASHOFF ET AL.

Examiner

Ali M. Mashaal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- 1) This action is in response to communication filed 01/16/2004.
- 2) Claims 1-17 are still under examination.

Response to Arguments

- 3) Applicant's arguments filed 16 January, 2004 have been fully considered by the office but they are not persuasive for the following reasons:

3.1) Applicant argues that with respect to claims 1, 8, 17 (and all other claims since they depend from these) that the applied prior art (specifically Reid) does not teach an authorization filter, by which the firewall can make a comparison of the content of at least part of one or more entries in the directory. However, the office respectfully disagrees with the applicant's position asserting that Reid does in fact teach such an authorization filter as previously mentioned in the office action filed 10 September, 2003. Reviewing again col. 7, line 45-col. 8 line 21 in detail, Reid discloses a configuration in which each router/gateway contains an updated router access list (RAL) which is distributed by a master directory and based on schema contained therein which may include names, workstations, servers, router/gateways, IP addresses, locations, passwords, and encryption keys. Each RAL as populated by the master directory includes the names and addresses of users and the destinations they are allowed to reach. This means that the router/gateway makes use of schema in the directory which is forwarded to it, namely addresses of devices and where they may be forwarded, and compares the requesting device's address and requested destination to that information

in the router/gateway which was provided by the directory server, in order to determine whether the requesting device should be allowed/denied access. Therefore, the router/gateway clearly contains an authorization filter by which it can make a comparison of the content of at least part of one or more entries in the directory to determines which traffic may be allowed to pass through to a given destination.

3.2) With respect to claims 6 and 13, applicant further argues that neither Reid nor Elgamel teach the use of a SSL communication to distribute an entry in an LDAP database. Again the office respectfully disagrees. Elgamel's invention teaches using SSL between devices on a network for added security. Furthermore, it is well-known in the art to do so.

3.3) With respect to claims 3 and 10, applicant further argues that Wesinger does not teach the use of GUI to specify how to specify the authorization filter. Again the office respectfully disagrees. Wesinger teaches configuration as explained in the previous office action.

3.4) With respect to claims 11 and 12, applicant further argues that Wesinger does not teach the claimed methods used to implement the authorization filter. Again the office respectfully disagrees. Wesinger teaches the methods used to implement the authorization filter as explained in the previous office action.

Claim Rejections - 35 USC § 103

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.1) Claims 1-17 are still rejected under 35 U.S.C. 103(a) as being unpatentable over US patent number 6,131,120 to Reid in view of The Microsoft Computer Dictionary, 1997, further in view of Check Point Account Management Client, Version 1.0, September 1998.

In reference to claims 1, 8, and 17, Reid substantially discloses a system comprising at least one directory, column 5, lines 23-31, that can be accessed using a network protocol. Although not explicitly mentioned, the only possible way for the directory to communicate with the various components on the network illustrated in figure 4, is through the use of a network protocol.

Column 5 lines 23-35 and column 6 lines 54-65, discuss the possibility of deleting or omitting a firewall and implementation of the firewall functions into other network elements. However, the examiner first notes that per the Microsoft Computer Dictionary, a firewall is defined as a security system intended to protect an organization's network against external threats; a firewall prevents computers in the organization's network from communicating directly with computers external to the

network and vice versa. In Reid, the firewall functions are integrated into a router/gateway receiving information (Router Access List) from a directory server, see column 6 lines 17-26 and lines 57-61. Acting as the firewall, the routers/gateways download the access list, and grant or deny access correspondingly. The examiner asserts that while the reference teaches elimination of a separate firewall, it does not in fact eliminate the firewall altogether but instead combines the functions of a firewall with that of a router/gateway into a single unit.

This firewall is configured to intercept network resource requests, see Reid, column 8, lines 6-11, which outlines that the users are either allowed or denied access by the router/gateway. This means that the router/gateway intercepts the users network requests.

Also, column 8, line 9, says "each user" in reference to users accessing the WAN. This establishes a plurality of users.

As per comparison of the authorization filter to directory entries, the examiner asserts that normal and well-known function of a firewall is to selectively control what client user has access to resources it protects. Thus, some type of authorization filter (i.e. filter relative to authorization information) would have to be executed. In Reid, see column 8 lines 14-21, RAL, or router/gateway access list is sent to each router/gateway and controls who may have access through router/gateway. The examiner asserts that in order for the directory to generate the appropriate access list, each router/gateway must have transmitted its access criteria to the directory. The examiner further asserts that this criterion is an authorization filter and that in order for the directory to send back

a correct access list, some comparison must have been made with directory entries and the router/gateway criteria (authorization filter).

As per the filter being generated based on schema that is predefined by the entity, Reid discloses that the access list is all ready set in the master directory and is then downloaded to the router/gateway, column 8, lines 14-21. This asserts that the schema is predefined, and that the filter is generated based on it.

We have established to this point that Reid teaches a system for authorizing client access to a network resource having one or more directories that can be accessed through a network protocol, and a firewall that is configured to intercept network resource requests from a plurality of clients, in which the firewall authorizes the requests of the clients based on one or more entries in the said directory to an authorization filter, wherein the authorization filter is generated based on a directory schema that is predefined by the said entity.

As per the directory being configured to store information concerning an organization's entity, Reid's directory, is configured to store names, workstations, router/gateways, servers, IP addresses, locations and so on, column 5, lines 36-39. Reid's directory does not store information concerning an entity's organization. Check Point Account Management Client (disclosed in applicants IDS) teaches storing an entity's organization in a directory tree, page 2, figure 1-1 LDAP Tree Example. Since this structure can be used to authenticate users, it would have been obvious to one of ordinary skill in the art at the time of the invention to take the analogous storage directory tree of Reid and modify it such that Reid's directory tree stored an entity's

organization similar to that of Checkpoint. Examiner also notes that Reid implies that it is not necessarily true that what he chooses to store in the directory is the only thing that can be stored, refer to column 7 line 61, when Reid says "In the embodiment of this invention, the objects may be individual's names....".

In reference to claims 2 and 9 which further limit claims 1 and 8 respectively by specifying the directory as being an LDAP directory, Reid teaches a system analogous to that in claims 1 and 8 as mentioned above, and also teaches the use of LDAP directories. See column 4, lines 7-11, column 6, lines 20-24, and column 8, lines 28-31.

In reference to claims 4 and 5, which each depend from claim 1, Reid substantially teaches a system analogous to that in claim 1 as mentioned above, and also teaches that the directory contains objects with associated attributes. Specifically, Reid says that the users, router/gateways, and servers are objects. The examiner asserts that Reid's invention teaches both per-user and per-server authentication since this object-oriented directory is organized such that users, router/gateways, and servers are all objects each of which having attributes that include IP address, password, privileges, and location. See column 6, lines 13-20. Accordingly, Reid substantially suggests that any of the two authentication methods could be used.

4.2) Claims 6 and 13 are still rejected under 35 U.S.C. 103(a) as being unpatentable over Reid as applied to claims 1 and 8 above, and further in view of US patent number 5,657,390 to Elgamal. Reid's invention fails to teach the use of SSL as means to

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secure the communication between the firewall and the directory. Elgamal's analogous invention teaches that because the socket layer is widely used in networks, integration of SSL into machines that are connected to the network and receive requests would be facilitated. See column 1, lines 60-63. It would have been obvious to one having ordinary skill in the art at the time the invention was made to take Reid's firewall and use the SSL method taught by Elgamal to communicate between the firewall and the directory. One having ordinary skill in the art at the time the invention was made would have been motivated to do so because Elgamal establishes a need for SSL as a security mechanism between various applications to transfer various data between one another. See column 1, lines 44-54. Furthermore, the nature of the information being transferred between the firewall and the directory in the applicant's invention is private and sensitive.

In reference to claims 7 and 14, which further limit claims 1 and 8 respectively by specifying multiple directories being queried, Reid substantially teaches a system analogous to that in claims 1 and 8 as mentioned above, and also teaches the use of multiple directories as described in column 7, lines 58-61, when he refers to distributed directories and a master directory.

In reference to claims 15 and 16 which further limit claim 8 by specifying that the request comes from an internal user and an external user respectively, Reid substantially teaches a system analogous to that in claim 8 as mentioned above, and

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also states that his system handles both internal and external requests. Refer to column 7, lines 39-44, when Reid says that the security policy is defined whether the user is internal or external to the network.

4.3) Claims 3 and 10 are still rejected under 35 U.S.C. 103(a) as being unpatentable over Reid as applied to claims 1 and 8 above, and further in view of US patent number 5,898,830 to Wesinger. Reid discloses a system that encompasses all the limitations of claims 1 and 8, but fails to teach the use of a GUI interface to specify the authorization filter. Wesinger, in an analogous art, teaches the use of a graphical user point and click web interface for configuring the firewall and specifying configuration parameters. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the firewall of Reid to include a GUI interface by which the authorization filter could be specified. One having ordinary skill in the art at the time the invention was made would have been motivated to do so because graphical user interfaces have become highly popular and favored for their ease of use, and because they are cheap and easy to develop.

Claims 11 and 12 are still rejected under 35 U.S.C. 103(a) as being unpatentable over Reid in view of Wesinger as applied to claims 3 and 10 above, and further in view of Reid as applied to claims 4 and 5 above.

Conclusion

5.) **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali M. Mashaal whose telephone number is 703-305-7854. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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